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**BELLSOUTH**

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

August 27, 1999

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW, Room TW-A325  
Washington, DC 20554

RE: Revisions of the Commission Rules to Ensure Compatibility with  
Enhanced 911 Emergency Calling Systems, CC Docket 94-102  
**Ex Parte**

Dear Ms. Salas:

This is to inform you that on August 26, 1999, Linda Lancaster, Andrew Clegg and Ben Almond, all of BellSouth Corporation met with Kris A. Monteith, Nancy Boocker, Dan Grosh, Marty Liebman, Won Kim and Ron Netro, all of the Wireless Telecommunications Bureau concerning the above referenced subject. The attached document was used for discussion purposes.

Please associate this notification and accompanying material with the referenced docket proceeding.

If there are any questions concerning this matter, please contact the undersigned.

Sincerely,



Ben G. Almond  
Vice President-Federal Regulatory

Cc: Kris A. Monteith      Won Kim  
Nancy Boocker      Ron Netro  
Dan Grosh      Marty Liebman

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# Ex Parte Presentation:

BellSouth Cellular Corp.

FCC Docket No. 94-102

E911 Location Technologies

August 26, 1999

# Accuracy

- To date, BellSouth has not identified any location equipment that conclusively meets the current FCC accuracy requirements
  - BellSouth has tested or has been involved in tests of three different LCS systems
  - Many calls were not located at all
  - The specific tests performed by BellSouth did not meet the 125 m accuracy requirement (on average or by 67% cumulative probability)
- Despite vendor claims, there remain major stumbling blocks for location technology equipment
  - Location within the central parts of certain buildings (large office buildings, shopping malls, parking garages, below-ground floors) is not possible in most cases with any technology
  - Network-based location equipment cannot currently deal with cellular repeaters and some types of microcells
- BellSouth is still uncertain how we can demonstrate compliance with FCC accuracy requirements

# Latency

- Latency (the time it takes to determine a position and communicate the position to a PSAP) remains a problem for handset-based GPS solutions.
- Non-network-assisted GPS may typically take 30 seconds for a first fix.
- Even with ideal GPS coverage, a non-network-assisted handset could take 15 minutes or more for a first fix, assuming a cold start and that the user has traveled a great distance (e.g., on an airplane) from his/her last position
- Network-assisted GPS handsets can obtain shorter latency periods, but vendors are still indicating best-case of 5 – 15 seconds. This is not fast enough to route an emergency call.

# Availability of Technology

- Location equipment for certain air-interface technologies is not currently available, even in prototype versions
- BellSouth is not aware of any vendor currently offering network-based location equipment for GSM/PCS1900 networks
- Availability of prototype GSM/PCS1900 network-based equipment is expected in 2Q 2000
- Assuming best-case time scales for development of prototypes, vendor testing, operator trials, and mass production of equipment, it would be difficult or impossible to meet the 10/1/2001 deadline for a network-based GSM/PCS1900 solution

# Handset Penetration

- Handset manufacturers have not committed to location capable (LC) handset availability dates.
- The actual “cost to consumer” of handset location features is unknown.
- Handset turnover is dependent upon many factors:
  - customer use
  - availability of new services
  - cost of handset
- It is not possible to predict PSAP readiness for Phase II location information.

It is premature for the Commission to establish LC handset penetration levels at this time.

# **BellSouth's Role**

- Subject to non-disclosure agreements, BellSouth will work with the FCC to share testing strategies and test results, for the purpose of facilitating a better understanding of LCS capabilities with respect to accuracy and latency.
- BellSouth will continue to evaluate and test a variety of LCS systems, in order to select the most reliable and cost effective solutions available.
- BellSouth is committed to work with all affected groups in order to meet its Phase II E911 obligations.